

4-2: Students will demonstrate an understanding of the characteristics and patterns of behavior that allow organisms to survive in their own distinct environments. (Life Science)

Key Concepts:

Plant groups: flowering plant, non-flowering plant, seed, spore

Animal groups: vertebrate, invertebrate

Environments:

Senses: sensory organs

Behaviors: inherited, acquired adaptations

Recommended Websites

San Diego Zoo

<http://www.sandiegozoo.org/animalbytes/index.html>

Teachers are able to choose from amphibians, reptiles, birds, insects, and mammals.

Pictures of animals are clear, colorful and include references to different habitats. 4-2.1

Bbc-UK

http://www.bbc.co.uk/nature/animals/mammals/up_close/

10 mammals are provided for students to compare similarities. Students may compare habitat, behavior, species, diet and interesting facts of distinctive species of mammals. – 4-2.1

New Hampshire Public Television

<http://www.nhptv.org/Natureworks/nwstd.htm>

Interactive site students can check their knowledge, click on different communities: marine, fresh water, and terrestrial. Explore the characteristics of the environments and the organisms found in each. 4-2.2

Discovery Education

<http://school.discovery.com/lessonplans/activities/makeitahabitat/biomes.html>

Contains pictures and descriptions of different habitats: deciduous forest, ocean, fresh water, desert, tropical rain forest, savannah, grassland, chaparral, taiga, tundra 4-2.2

The Nature Conservancy

<http://www.nature.org/rainforests/explore/video.html>

Students are able to click on videos of different rainforests and learn how deforestation is impacting. 4-2.6

New Hampshire Public Television

<http://www.nhptv.org/natureworks/nwep4.htm>

Students are able to investigate migration (some animals move to find food and stay warm); how and why animals migrate including quizzing themselves on what they know. 4-2.4

Science News for Kids

<http://www.sciencenewsforkids.org/articles/20050413/Feature1.asp>

Students can click on specific animals and research animal behaviors. 4-2.5

Recommended Literature

Forest Explorer: A Life-Size Field Guide. Nic Bishop Scholastic Press. 48pp. ISBN 0-439-17480-5 Children travel through seven life-size habitat scenes showing more than 130 animals, from aphids to toads, in their natural surroundings. 4-2.4

One Small Place in a Tree. Barbara Brenner. Illustrated by Tom Leonard. HarperCollins Publishers. 32pp. ISBN 0-688-17181-8, By looking at a microhabitat in a single tree, the reader will discover the relationships between the tree and the various organisms, from bears to beetles to birds, that make the tree their home. 4-2.5

Pond. Written and illustrated by Gordon Morrison. Houghton Mifflin. 32pp. Trade ISBN 0-618-10271-X. Changes and activities that occur over days and weeks throughout the seasons in, on, and around a pond are described. 4-2.2

Pond Watching with Ann Morgan. Michael Elsohn Ross. Illustrated by Wendy Smith. Carolrhoda Books/Lerner. 48pp. Library ISBN 1-57505-385-3. Readers follow Ann Readers uncover the mysteries of newts, mayflies, and other water creatures 4-2.5

River of Life. Debbie S. Miller. Illustrated by Jon Van Zyle. Clarion Books. 32pp. Trade ISBN 0-395-96790-2. Life cycles that unfold along a river, as winter melts into spring and spring becomes the warm days of summer. Inviting illustrations help tell this story of a river ecosystem. 4-2.2

Rain Forests Sara Oldfield. 48 pp. ISBN library: 0-8225-2778-2 Beautiful pictures of the flora and fauna of the world's rainforests. 4-2.2

The desert fox family book (*Animal Family* series). Written and illustrated by Hans Gerold Laukel. Translated by Rosemary Lanning. North-South. 56pp. ISBN trade: 1-55858-579-6, Great descriptions of desert foxes in their habitats. 4-2.3

Tree of life: The Incredible Biodiversity of Life on Earth (Aspen Henry Bergh Children's Book Awards (Awards)) (Hardcover) Rochelle Strauss Illustrated by Margot Thompson, Oct. 2004, Kids Can Press Publisher, 40 pp. ISBN 1553376692 Five kingdoms are broken down into animals and then into invertebrates and vertebrates finally moving into a subdivision of fish, birds, etc. Students are provided an overview 4-2.1

A desert scrapbook: dawn to dusk in the Sonoran desert. Written and illustrated by Virginia Wright-Frierson. Simon and Schuster. 32pp. ISBN 0-689-80678-7. (I) Students are taken on a

tour of the Sonoran Desert, using the skill of an artist, scientist, and writer to show some of the plants, animals, and physical features of this ecosystem. 4-2.2

Animal Talk: How Animals Communicate Through Sight, Sound and Smell (Animal Behavior) (Paperback) Etta Kaner Illustrated by Greg Douglas, 2002, Kids Can Press Publisher, 40 pp. ISBN 1550749846 4-2.4 Students are provided an overview of how animals communicate by using body language, luminescence, generating odors, etc. For grade four this book is recommended as a read aloud. 4-2.3

Animals in Motion: How Animals Swim, Jump, Slither and Glide _Pamela Hickman, Illustrated by Pat Stephens Kids Can Press Publisher, April 2000, ISBN 1550745751, The book describes animal movement from cheetahs to jellyfish to sloth. Use as a read aloud for grade 4. 4-2.4

Recommended Streamline Video

Dr. Dad's PH3: Episode Ten: Animal Architecture 14:45 min.
<http://www.unitedstreaming.com/search/assetDetail.cfm?guidAssetID=0735bbcd-41d2-4a65-abab-651ee1f4896c> Students study types of nests animals build and which types are the strongest and most protective.

Cool Creatures: Reptiles 24.4 min. duration
<http://www.unitedstreaming.com/search/assetDetail.cfm?guidAssetID=63c88b7f-a656-43dd-83e5-f640422cefb4> Different reptile habitats are explored, along with the reptiles' mechanisms for survival.4-2.1

Animals Around Us: Reptiles: What Are They? –10 min. duration
<http://www.unitedstreaming.com/search/assetDetail.cfm?guidAssetID=33B99655-AE54-4AFF-A493-BABCE3777570> Describes reptiles; segments describe turtles; alligators; lizards and snakes 4-2.1

Creature Features: Creatures in Trouble
<http://www.unitedstreaming.com/search/assetDetail.cfm?guidAssetID=2949bc1d-4375-4208-82a0-f496574f9576> ; 5 min.
The scientific concepts presented in this series include interdependence of life forms, animal habitats and communities, adaptation and human intervention.
4-2.2

Creature Features; Special Features of Creatures; 5 min
<http://www.unitedstreaming.com/search/assetDetail.cfm?guidAssetID=75c5b3ff-02a6-43fa-ae7d-487d2f87c180>. Explores the different features animals have that help them survive; for example the hummingbird and nectar. 4-2.2

Career Connections

Air and Water Quality Management: Managing the air as a natural resource. Air resource managers identify and address important air quality issues, while considering social and economic issues.

Environmental Engineering: Environmental engineering includes air pollution control, industrial hygiene, radiation protections, hazardous waste management, storm water management, solid waste disposal and land management.

Forestry: Forestry includes land management and caring for the animals and plants found in the assigned area.